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BEFORE THE

Federal Communications Commission

WASHINGTON, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of:	)	
	)	
Implementation of Section 17 of	)	
the Cable Television Consumer	)	
Protection and Competition Act of 1992	)	ET Docket No. 93-7
	)	
Compatibility Between Cable Systems	)	
and Consumer Electronics Equipment	)	
	)	

OPPOSITION TO PETITION FOR RECONSIDERATION AND CLARIFICATION

SUBMITTED BY TIME WARNER ENTERTAINMENT COMPANY, L.P.

Fleischman and Walsh
1400 Sixteenth Street, NW
Sixth Floor
Washington, D.C. 20036
(202) 939-7900

Its Attorneys

Date: July 28, 1994

Time Warner Entertainment Company, L.P. ("Time Warner"), by its attorneys, hereby submits its Opposition to certain aspects of the Petition for Reconsideration and Clarification filed by the Electronics Industry Association Consumer Electronics Group ("EIA/CEG") with respect to the Commission's First Report and Order adopted in the above-captioned proceeding.[1] Time Warner is majority owned by Time Warner Inc., a publicly traded company, and consists principally of three divisions: 1) Time Warner Cable, which operates cable systems; 2) Home Box Office, which wholly owns two premium television services (the HBO service and Cinemax) and is 50% owner of one non-premium service (Comedy Central); and 3) Warner Bros., which produces and distributes motion pictures and television programs. Time Warner previously submitted comments and reply comments in response to both the original Notice of Inquiry and the more recent Notice of Proposed Rulemaking in ET Docket No. 93-7. Additionally, Time Warner has filed its own Petition requesting that the Commission reconsider certain aspects of its First Report and Order adopted in this proceeding with respect to Section 76.630(c) of the Commission's rules, which prohibits cable operators from altering the infrared codes used to operate the remote control capability of customer premises equipment. Accordingly, Time Warner has actively participated in these proceedings from their inception.

In its Petition for Reconsideration and Clarification, the EIA/CEG advances two arguments which Time Warner wishes to address. First, the EIA/CEG argues that cable operators should not be permitted to "channel map" and requests the Commission to adopt a requirement that channel numbers on home terminals correspond to their assigned frequencies under the IS-132 channelization plan.[2] Second, the EIA/CEG requests that the Commission

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[1]First Report and Order in ET Docket 93-7, FCC 94-80 _____ FCC Rcd _____ (released May 4, 1994).

[2]EIA/CEG Reconsideration Petition at pp. 9-10. The Commission must recognize that a prohibition on channel mapping goes far beyond a requirement that cable systems comply with the IS-132 frequency plan. As long as analog programming is delivered on the frequency slots established by the IS-132 plan, it can be received and displayed on consumer electronics equipment in a fully compatible manner. The very different question of the channel selector position on which a particular program is displayed after it reaches the subscriber's equipment is not, strictly speaking, an equipment compatibility issue.

"clarify" that "cable operators be required to offer component descramblers which perform only signal security functions."[3] Each of these issues will be discussed in turn.

1. CHANNEL MAPPING

Channel mapping is a practice whereby video programming or other visual information, either carried on the cable system or generated locally by a home terminal, is displayed on a subscriber's television set on a channel selector position which does not correspond to the IS-132 frequency slot for that channel position. The EIA/CEG raises two objections to channel mapping. First, because channel mapping allows for a program to be placed on a home terminal channel selector position different from its IS-132 frequency assignment, the EIA/CEG argues that consumers who do not utilize set-top terminals will be "hopelessly confused as they try to find the network without a set-top box."[4] Second, the EIA/CEG argues that this confusion will weaken the demand for new cable-ready receivers and force consumers to utilize set-top boxes unnecessarily.[5] These arguments are speculative and unsupported. More importantly, however, the reasons for retaining the ability to channel map are compelling.

Initially, it should be noted that channel mapping is not universally employed and, in systems where channel mapping is utilized, it is common practice for the cable system to provide subscribers with information both as to the set-top channel selector position for each cable service and the corresponding position at which each service would be found on a cable-ready television set. Accordingly, EIA/CEG's concern over subscriber confusion resulting from channel mapping is simply not a significant problem.

There are a number of reasons why channel mapping may be necessary on a particular cable system. In some cases, channel mapping is a feature which is built into a particular model of set-top terminal by the manufacturer. There are many different models of varying ages of converters and descramblers currently in use throughout the cable television industry. Over

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[3]Ibid. (emphasis original).

[4]EIA/CEG Reconsideration Petition at p. 9.

[5]Ibid.

time, as the channel capacity of cable systems has increased, the numbering scheme employed by set-top terminal manufacturers has changed. When cable systems began operating at a capacity of up to 36 channels, cable channel A-1 (115.25 MHz), which did not have a designated channel selector position, was placed on channel selector position 37 by some terminal manufacturers even though channel 37 is paired with a different frequency (301.25 MHz $\pm$ 12.5 KHz) under the IS-132 frequency plan. On terminals manufactured by a different manufacturer, or manufactured at a different time, channel A-1 was, in some cases, assigned to a different channel selector position. Similarly, some set-top terminals manufactured for use with dual cable plant, such as the Zenith Z-TAC terminal, were channel mapped so that frequencies on the "B" cable followed consecutively from the last channel position used on the "A" cable. Thus, if the channels on the "A" cable were channels 2 through 64, the "B" cable channels were mapped to begin at channel 65 and ascend consecutively from there.

In the former example, channel mapping results from a historical anomaly. In the latter case, channel mapping was employed specifically to minimize subscriber confusion and avoid the need for the subscriber to have to toggle between the "A" and "B" cables, each having an identical set of channel numbers. Because significant quantities of this equipment are in use in the field, any prohibition on channel mapping would impose substantial costs on cable systems which would be forced to purchase new terminal equipment. Ultimately, these costs would have to be borne by subscribers in the form of higher equipment rates since charges for customer premises equipment are designed to allow recovery of actual costs under the Commission's rate regulation formula.[6]

Even where it is not built into customer premises equipment, channel mapping may be utilized for a variety of sound reasons. For example, channel mapping may be used to avoid degradation and ghosting of particularly strong local broadcast signals which can sometimes result in cases when such stations are carried on their assigned off-air frequency on the cable system. Because no cable system, no matter how well maintained, is ever completely free of

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[6]47 C.F.R. § 76.923.

signal ingress, the existence of a strong off-air local broadcast station in proximity to a cable system could result in direct pickup interference ("DPI") with the delivery of that signal on its off-air assigned frequency over the cable system. One way to avoid this problem is to carry the off-air broadcast station on a different frequency (i.e., channel slot) from its off-air assignment. In such cases, channel mapping allows the cable operator to balance two conflicting regulatory requirements, the requirement that it provide on-channel carriage to local television stations who request it[7] and the requirement that local broadcast stations be delivered to subscribers without material degradation.[8] It also minimizes confusion for those subscribers who utilize set-top terminals since the broadcast station appears at the channel selector position corresponding to its off-air channel assignment even though it is being physically delivered on a different frequency over system facilities, then "mapped" to its off-air position by the home terminal.

Another instance where channel mapping may be utilized to allow the cable system to comply with FCC regulations is where cable systems make extensive use of traps rather than scrambling to provide signal and tier security. Such systems often must employ channel mapping to comply with the on-channel carriage requirements of the 1992 Cable Act and the Commission's must-carry rules.[9] Depending on the number and off-air channel assignments of the television broadcast stations which may be deemed local in a given market, the requirement for on-channel carriage will, in many cases, result in a series of non-contiguous channels which must be utilized for the carriage of local broadcast stations and which must be included on the cable system's basic service tier.[10] Because of the inherent mechanical and electronic limitations on the number of traps that can be utilized on any given subscriber drop, cable

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[7]See 47 U.S.C. §§ 534(b)(6) and 534(g)(5); 47 C.F.R. § 76.57(a) and (b). Time Warner is the plaintiff in a lawsuit challenging the constitutionality of these and other provisions of the 1992 Cable Act and submits this Opposition without prejudice to its claims and arguments in that lawsuit.

[8]See 47 U.S.C. §§ 534(b)(4)(A) and 535(g)(2); 47 C.F.R. § 76.62(b)-(d).

[9]See 47 U.S.C. §§ 534(b)(6) and 534(g)(5); 47 C.F.R. § 76.57(a) and (b).

[10]47 U.S.C. § 543(b)(7).

systems which utilize trapping to secure their tiers and premium services are often forced to position the channels comprising the basic tier in a single contiguous group. Compliance with "on-channel" carriage requirements can be accomplished only by channel mapping each broadcast station's elected channel position to the proper channel selector position on the set-top terminals which are available to cable subscribers. Although this does result in broadcast stations being "off channel" with respect to those subscribers who do not utilize a home terminal, the fact that all broadcast stations are grouped together in a contiguous block of spectrum makes these stations easy to locate for those subscribers. Such an approach also allows subscribers who have "cable-ready" television sets and VCRs to utilize all of the enhanced features of their consumer electronics equipment with their cable service without the need to purchase or lease supplemental equipment, a significant goal of the 1992 Cable Act.[11]

In the event that channel mapping were to be prohibited as a means to comply with the Commission's must-carry requirements, the inherent limitations of trapping technology would force cable operators to employ more advanced technologies, such as scrambling, to comply with the channel positioning requests of local broadcast stations as each non-basic channel or contiguous grouping of channels would have to be secured independently. It is certainly ironic that EIA/CEG argues that channel mapping should be prohibited in order to avoid the need for "unnecessary set-top boxes"[12] when a prohibition on the use of channel mapping will in fact increase both pressure on cable operators to employ scrambling and the need for set-top terminals.

Channel mapping is also needed to support delivery of newly emerging services such as near video on demand and impulse pay-per-view. In a programming universe where a subscriber may choose from among different movies offered on a pay-per-view channel or from different starting times for a particular movie, the use of "virtual channels" and forced tuning allows subscribers to navigate through a myriad of choices and channels in a user friendly

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[11]See, e.g., 47 U.S.C. § 544A(a)(1), (b)(1), (c)(1)(A).

[12]EIA/CEG Reconsideration Petition at p. 9.

fashion. For example, a particular movie may be carried on eight different channels, each channel with a different starting time spaced a quarter of an hour apart. If a subscriber wishes to view this particular movie, he or she may do so using an on-screen menu to choose both the movie and the starting time. Once this is accomplished, the home terminal displays the correct programming on the subscriber's television set at the time selected. There is no need for the subscriber to hunt through a myriad of channels to find the appropriate channel exhibiting the movie selected at the proper starting time. A similar process is used when a subscriber chooses from among a number of different pay-per-view titles all available simultaneously. The subscriber need only access an on-screen menu and select the movie desired. Delivery of the program to the subscriber's set is accomplished through the forced tuning function of the home terminal, possible only through channel mapping. This is especially beneficial in cases where a subscriber ordered a particular event well in advance. The channel mapping/forced tuning function can be used to ensure that the program ordered appears on the subscriber's TV set at the proper time even though the set may have been tuned to the wrong channel when the ordered event was scheduled to begin.

Channel mapping can also be used to provide access to text services that do not utilize a full 6 MHz of spectrum allocated for NTSC video signals. Thus, a cable system may assign unused channel selector positions above the activated channel capacity of the system for tuning to text and other services which are provided on subcarriers or narrowband carriers that do not correspond to IS-132 channels. Subscribers do not have to go through any complicated procedure to access these services but rather may tune their home terminals to channel 78, for example, for financial information and stock quotes or channel 79, for example, for the latest sports scores.

As digital programming delivery systems are employed, channel mapping and forced tuning will become even more important to provide a customer friendly interface that allows customers to navigate through numerous digitally compressed channels and subchannels delivered in a manner not corresponding to the IS-132 frequency allocation plan. In such cases, the

subscriber would only need to know how to utilize the on-screen display functions of the home terminal equipment to locate and select the desired programming or information service. The selection of the proper information from the data stream for display on the subscriber's television set would be controlled by the home terminal or decoder interface without the need for the subscriber to follow a complicated set of tuning instructions to obtain the desired programming.

As the foregoing illustrates, the benefits of channel mapping are real and significant while the objections raised by the EIA/CEG are speculative at best. Accordingly, the Commission should decline the EIA/CEG's invitation to prohibit channel mapping by cable systems.

2. SEPARATION OF SECURITY AND OTHER FUNCTIONS OF CUSTOMER PREMISES EQUIPMENT

In its Reconsideration Petition, the EIA/CEG asks the Commission to interpret paragraph 42 of its First Report and Order to require that "(1) the Decoder Interface be designed in such a way as to enable all functions other than signal security to be provided in competitively supplied equipment and (2) cable operators be required to offer component descramblers which perform only signal security functions."[13] Although Time Warner agrees that the decoder interface should be designed in a way to enable functions other than signal security to be provided in competitively supplied equipment, Time Warner opposes any requirement that would limit the component decoders provided by cable operators to performing only signal security functions. Such a prohibition is neither warranted nor supported by any reasonable interpretation of paragraph 42 of the Commission's First Report and Order. Furthermore, such a prohibition would weaken, rather than strengthen, the development of a competitive market for equipment used to receive cable service unless a similar prohibition was also imposed on the manufacturers of consumer electronics products.

Nowhere in its First Report and Order does the Commission suggest that the ability of the decoder interface to separate security and non-security functions requires that cable operators be prohibited from providing components for use with the decoder interface that perform functions other than descrambling. The paragraph which the EIA/CEG asks the Commission

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[13]EIA/CEG Reconsideration Petition at pp. 9-10.

to clarify states only that "the Decoder Interface should provide the capability to separate access control functions from other functions served through the connector."[14] The purpose of this separation is to "allow non-security functions to be provided through new products offered by retail vendors or to be incorporated into TV receivers and VCRs, thereby promoting competition in the market for equipment used to receive cable service."[15] Clearly, competition is lessened, not increased, by prohibiting cable operators from incorporating non-security related features into the component terminal equipment to be utilized with the decoder interface.

The goal of competition in the provision of cable customer premises equipment should be to provide a superior product at lower cost to the consumer. Thus, cable operators need the ability to integrate non-security related functions into their component terminals for the same reason that consumer electronics manufacturers wish to incorporate these functions into their television receivers and VCRs, that is, to realize cost savings. The very same microprocessor contained in a cable descrambler to control security functions is used to provide on-screen displays and forced tuning capabilities. Since very little memory is required for these additional features, no significant savings to the customers would be realized if the same descrambling terminal were provided without the on-screen display and forced tuning capability. On the other hand, if the microprocessor has to be duplicated in order to provide the on-screen display and forced tuning capabilities in a physically separate unit, the cost to the consumer would be significantly higher than if those functions were provided within the descrambler circuitry.

Many models of integrated set-top home terminals in use throughout the cable industry presently have the capability of providing on-screen displays and forced tuning as well as other features such as parental lock-out, favorite channel recall and a host of other functions. Cable operators are required to provide some of these functions, such as the parental lock-out option, pursuant to provisions of the Communications Act and the Commission's rules.[16] Other

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[14]First Report and Order at ¶ 42.

[15]Ibid.

[16]See, e.g., 47 U.S.C. § 544(d)(2)(A); 47 C.F.R. § 76.11.

features, such as favorite channel recall and on-screen program guides, are desired by customers. Still other features, such as on-screen menus and forced tuning, are necessary to support newly emerging services such as multichannel impulse pay-per-view and near video on demand. Indeed, with the advent of digital television, the need for intelligent terminals utilizing on-screen displays, channel mapping and forced tuning will increase as the correlation between the programming provided and fixed frequency assignments diminishes. If the same support functions found in set-top terminals may not be incorporated into the home terminal component to be utilized with the decoder interface, this might create a real obstacle to the widespread consumer acceptance and deployment of component terminals, contrary to the compatibility goal established by Congress in the 1992 Cable Act and the desires of the Commission.

3. CONCLUSION

Adoption of the decoder interface standard was intended to facilitate greater compatibility between cable systems and consumer electronics products, and should not be used to prevent cable operators from providing their services in a user friendly fashion. The Commission should not allow the equipment compatibility process, and negotiations on the decoder interface standard, to be used to limit the ability of cable operators to provide the same on-screen displays, channel mapping and forced tuning capabilities which are available in set-top home terminals currently deployed or to add similar features in the future. Just as the consumer electronics industry should be free to provide features and functions that make their products more desirable to consumers, so should the cable industry. And just as cable service should be provided in a manner that does not interfere with the use of the features and functions provided in consumer electronics equipment, consumer electronics equipment should not be designed in a fashion to preclude cable operators from providing the features and functions needed to support cable services and make those services more user friendly. To this end, the Commission should ensure that whatever standard is adopted for the decoder interface, a rich enough set of command codes is established for ancillary features and functions such as on-screen displays and program guides so that the consumer electronics industry, the cable industry, and other third

party manufacturers will be able to make available competitive products that can be accessed and controlled by the remote control unit compatible with either the consumer's electronics products or the home terminal offered by the cable operator. Furthermore, such command codes should allow cable-ready television sets and VCRs to take advantage of channel mapping and forced tuning through the component terminals used with the decoder interface, thereby alleviating any concern that the use of channel mapping would weaken demand for new cable-ready equipment.[17]

Based on the foregoing, Time Warner respectfully requests the Commission to deny the EIA/CEG's Petition for Reconsideration and Clarification insofar as its advocates prohibitions against both channel mapping and the right of cable operators to provide features used to support the delivery of cable services within component terminals to be used with the decoder interface.

Respectfully submitted,

TIME WARNER ENTERTAINMENT
COMPANY, L.P.

By: Howard S. Shapiro
Aaron I. Fleischman
Howard S. Shapiro

Fleischman and Walsh
1400 Sixteenth Street, NW
Sixth Floor
Washington, D.C. 20036
(202) 939-7900
Its Attorneys

Date: July 28, 1994

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[17]EIA/CEG Reconsideration Petition at p. 9.

CERTIFICATE OF SERVICE

I, Glenda V. Thompson, a secretary at the law firm of Fleischman and Walsh, hereby certify that copies of the foregoing "Opposition to Petition for Reconsideration and Clarification" were served this 28th day of July, 1994, via first-class mail, postage pre-paid, except where noted otherwise, upon the following:

Barbara N. McLennan
George A. Hanover
Electronics Industry Association
2001 Pennsylvania Avenue, NW
Washington, D.C. 20006

Joseph P. Markoski
Jeffrey A. Campbell
Squire, Sanders & Dempsey
1201 Pennsylvania Avenue, NW
Post Office Box 407
Washington, D.C. 20044
Counsel for Electronics
Industry Association

Glenda V. Thompson

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